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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,087	12/20/2001	Alan B. Shuey	010071	3407
9961	7590	06/06/2006		
PAUL A. BECK & ASSOCIATES SUITE 100 1575 McFARLAND ROAD PITTSBURGH, PA 15216-1808			EXAMINER RODRIGUEZ, RUTH C	
			ART UNIT 3677	PAPER NUMBER

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/029,087	Applicant(s)	
	Examiner Ruth C. Rodriguez	Art Unit 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 20-22 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-22 and 24-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12 May 2006 has been entered.

2. Claims 20-23 are rejected under the doctrine of Res Judicata based on the appeal's decision made on 31 August 2005 by the Board of Patent Appeals and Interferences to affirm the rejection of Facey et al. in view Pasbrig and the rehearing's decision made on 17 November 2005 by the Board of Patent Appeals and Interferences to affirm the rejection of Facey et al. in view Pasbrig.

### ***Claim Objections***

3. Claims 24 and 26 are objected to because of the following informalities:
- Claim 24, line 22, "wire" should be replaced with --cable--.

- Claim 26, line 1, "a" (first occurrence) should be deleted.

Correction is required.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Facey et al. (US 6,003,210) in view of Pasbrig (US 4,889,320).

Facey discloses a releasable cable grip connector (23) locking a cable segment (20) within a housing. The cable grip connector comprises a housing (27), a channel (26A,26B) and a wedge means (25A 25B). The housing has a first bore therethrough (24A) to receive a first cable segment and a second bore (24B) therethrough parallel to the first bore to receive a second cable segment (Figs. 1a, 2a, 2b and 3-8b). The first and second bores have a diameter that permit freely passing the first and second cable segments through the bores (Figs. 1a, 2a, 2b and 3-8b). The first and second bores are straight throughout the extent of the housing (Figs. 1a, 2a, 2b and 3-8b). The channel within the housing is disposed to one side of the first bore and acutely inclined to and, at its inner end, breaking into the first bore (Fig. 8). The wedge means is positioned within the housing in the channel and spring-loaded by a coil spring (31A,

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31B) to bias the wedge means against the cable segment within the first bore to wedge the cable segment against the first bore and thereby grip the cable segment (C. 1, L. 8-20). The coil spring that spring loads the wedge is positioned axially within the channel so that the force generated by the coil spring acts at all times in an axial direction (Fig. 8). Facey utilizes a tool (35) to free the cable. Facey fails to disclose using a release lever extending through a slot in the body to release the cable grip. However, Pasbrig teaches a releasable cable grip connector locking a cable segment (16) within a housing (1). The cable grip connector comprising wedge means (5,5'',9), a release lever (6,6'',9',9'') and a housing (1) with a bore (15), a channel (2) and a slot (27). The channel is disposed to one side of the first bore and acutely inclined to and, its inner end, breaking into the bore (Figs. 1-7). The wedge means is positioned within the housing in the channel and spring loaded by a coil spring (4,4') to bias the wedge means against the first bore and thereby grip the cable segment (Figs. 1-7). The coil spring that spring loads the wedge means is positioned axially within the channel so that the force of the generated by the core spring acts at all times in an axial direction (Figs. 1-7). The slot in the housing extends parallel to the channel and to the coil spring within the channel and communicates with the channel (Figs. 1a-7). The release lever is fixed to the wedge means and extends through the slot to the outside of the housing whereby the release lever may be utilized to move the wedge against the force of the coil spring the cable segment and permits movement of the cable segment relative to the first bore (C. 2, L. 7-16 and Figs. 1a, 2a, 2b and 3-7). The release of the cable is simplified because the release lever transmits the unclamping force, which that acts against the

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force of the spring, directly to the wedge means (C. 2, L. 11-13). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a release lever according to the teaching of Pasbrig in the each of the bores of the cable grip of Facey. Doing so as mentioned above, will facilitate the release of the cable because the release force will be directly applied to the release lever in order to move the wedge means against the bias of the spring. The releasable cable grip connector disclosed by Facey uses a tool to release the cable segment, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to have a release lever connected to the wedge means to replace the tool of the Facey connector as taught by Pasbrig because the release lever will be integrally connected to the housing and readily available when it is needed instead of needing a separate tool to release the wedge means where the tool may become lost.

Pasbrig also teaches that:

The wedge means has a release lever extending outwardly from each side of the roller means through respective slots in opposite sides of the housing (Figs. 1-7).

Pasbrig also teaches that the roller means has a single release lever extending outwardly of the roller means through the slot in the housing (Figs. 1-7).

The second bore within the housing disclosed by Facey permits the second cable segment to move freely within the second bore when the tool disclosed by Facey or a release lever as taught by Pasbrig is used to move the wedge means, against the force generated by the coil spring, that wedges against the cable segment disposed in the second bore.

6. Claims 24, 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Facey et al. in view of Lyons (US 6,546,600).

Facey discloses a releasable cable grip connector (23) locks a cable (20) within a housing. The cable grip connector comprises a housing (27), a channel (26A,26B), a wedge (25A 25B) and a second bore (24B). The housing has a first bore therethrough (24A) to receive a second cable segment (Figs. 1a, 2a, 2b and 3-8b). The channel within the housing is disposed to one side of the first bore and acutely inclined to and, at its inner end, breaking into the first bore (Fig. 8). The wedge is positioned within the housing in the channel and spring-loaded by a coil spring (31A, 31B) to bias the wedge against the cable segment within the first bore to wedge the second cable segment against the first bore and thereby grip the cable segment (C. 1, L. 8-20). The coil spring that spring loads the wedge is positioned axially within the channel so that the force generated by the coil spring acts at all times in an axial direction (Fig. 8). The second bore through the housing is parallel to the first bore and receives a first cable segment that is connected to a support structure (Figs. 1a, 2a, 2b and 3-8b). The second bore is straight. Facey discloses that the second bore has the same structure as the first bore and that a tool (35) is used to free the cable. Facey fails to disclose using a release lever extending through a slot in the body to release the cable grip and that the second bore is unrestricted. However, Lyons teaches a releasable cable grip connector (14) locking a cable segment (C) within a housing (14). The cable grip connector comprises a wedge (17), a release lever (28) and a housing (14) with a first bore (16), a channel (15) and a slot (26). The first bore extends through the housing to receive a second

cable segment (Figs. 1-5A). The channel is disposed to one side of the first bore and acutely inclined to and, its inner end, breaking into the first bore (Figs. 1-5a). The wedge is positioned within the housing in the channel and spring loaded by a coil spring (20) to bias the wedge against the cable segment within the first bore to wedge the second cable segment against the first bore and thereby grip the cable segment (Figs. 1-5a). The coil spring that spring loads the wedge means is positioned axially within the channel so that the force of the generated by the core spring acts at all times in an axial direction (Figs. 1-5a). The slot in the housing extends parallel to the channel and to the coil spring within the channel and communicates with the channel (Figs. 1-5a). The release lever is fixed to the wedge and extends through the slot to the outside of the housing whereby the release lever may be utilized to move the wedge against the force of the coil spring the cable segment and permits movement of the cable segment relative to the first bore (Figs. 1-5a). The second bore through the housing receives a first cable segment that is to be connected to a support structure (by the loop formed between the first bore and the second bore as shown in Fig. 5). The second bore is straight and unrestricted so that when the first cable segment is through the second bore it can move freely through the bore at all times without having to activate a release, thereby creating a self-tightening loop when the cable is wrapped around an object and the second cable segment is locked into place by the wedge (C. 3, L. 21-23 and Figs. 1-5a). A significant advantage of the cable grip resides in the manner in which the wedge may be shifted from the locked position in which the wedge is forced towards the cable segment to a release position in which the wedge allows movement of the cable



segment by using pliers to release the wedge through the release lever and this highly desirable in applications where high cable tensions are likely to be encountered (C. 3, L. 45-59). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a release lever and a second bore according to the teachings of Lyons in the cable grip of Facey. Doing so, will facilitate the release of the cable because a significant advantage of the cable grip resides in the manner in which the wedge may be shifted from the locked position in which the wedge is forced towards the cable segment to a release position in which the wedge allows movement of the cable segment by using pliers to release the wedge through the release lever and this highly desirable in applications where high cable tensions are likely to be encountered. The releasable cable grip connector disclosed by Facey uses a tool to release the cable segment, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to have a release lever connected to the wedge means to replace the tool of Facey's connector as taught by Lyons because the release lever is integrally connected to the housing and readily available when it is needed and can be used with any pliers instead of needing a unique and separate tool to release the wedge means where the tool may become lost.

Lyons also teaches that:

- The second bore is cylindrical (Figs. 1 and 2).
- A second first bore opening is rectangular (Figs. 1 and 2).

Facey also discloses that the housing has a top, a bottom, a first side, a second side and a back. The top has a highest point in the middle and angling downwardly

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towards the first side. Facey fails to disclose that the top also angles downwardly to the second side. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the top also angling downwardly towards the first side since a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Especially since the Applicant fails to disclose any advantage derived from such a change in shape and it would be obvious that this change will represent a reduction of material and therefore a saving in the manufacturing cost that does not affect the strength of the cable grip.

7. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Facey et al. in view of Lyons as applied to claim 25 above, and further in view of Casanave (US 3,094,755).

Facey, Pasbrig and Lyons fail to disclose that the second bore has a conical shape at a first opening and a conical shape at a second opening. However, Casanave has a housing with a pair of parallel bores to receive a first cable segment and a second cable segment (Figs. 2 and 3). Each of the bore has a conical shape at a first opening and a conical shape at a second opening. Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to provide the second bore having a conical shape at a first opening and a conical shape at a second opening as taught by Casanave in the cable grip disclose by Facey and modified by Pasbrig and Lyons. Doing, so is well known in the cable grip art to prevent damage of

the cable since no sharp edges are provided at the entrance and exit openings of the bore.

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 24-27 have been considered but are moot in view of the new ground(s) of rejection.

9. The declaration under 37 CFR 1.132 filed on 17 January 2006 is insufficient to overcome the rejection of claims 20-22 based upon Facey et al. in view of Pasbrig as set forth in the last Office action because: The declaration submitted by Mr. James R. Moon provides speculative arguments against having a release lever fixed to the wedge means. The argument that only one person will have the tool to release the wedge means fails to be relevant. The other arguments such as the additional manufacturing costs, risk of failure due to breakage of lever, risk of failure due to dirt and debris, risk of canting, the use of a separate tool such as pliers that might be required to move the release lever, "a person of ordinary skill in the art would have no motivation to combine Facey and Pasbrig" and "a person of ordinary skill in the art knowing the above would not find Applicant's claimed invention obvious over Facey in view of Pasbrig" are considered speculative. The declaration fails to provide any factual evidence that supports the assertions being made against the inclusion of a release lever fixed to the wedge means. The declaration is insufficient to overcome the rejection of claims 20-22

based upon Facey et al. in view of Pasbrig in view of its speculative nature and the lack of concrete evidence that establishes that Facey et al. and Pasbrig.

10. The Applicant includes several patents trying to provide support for the assertions of Mr. James R. Moon. The Examiner fails to be persuaded by these documents because these patents are unrelated to the cable grip art and the mechanics of these inventions do not have any similarity to the claimed invention.

11. With respect to the Applicant's request of recommendation that will consider acceptable to prove these points, the Examiner suggests providing test results that will support these assertions or any other concrete evidence provides support to the assertions.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Knoche (US 1,165,785), Pasbrig (US 3,628,221 and US 4,889,320), Moransais (US 3,709,071), Wagner (US 3,939,594), Natkins (US 6,131,969), European Patent Document EP 0 013 693 A1, Swiss Patent Document 634 249 A5 and British Patent Document GB 2 210 517 A are cited to show state of the art with respect to releasable cable grips having some of the features of the current application.

Heisser (US 1,832,388), Werterkamp (US 4,878,270), Macias (US 5,548,873) and Lyons (US 6,546,600) are cited to show state of the art with respect to a cable grip

connector having two bores. One bore allows free passage of a cable segment and the other bore releaseably secures another segment of the cable.

Casanave (US 3,094,755), Facey et al. (US 5,147,145) and Facey et al. (US 6,058,574) are some of the examples of prior art of record to show state of the art with respect to the cable grips having a conical shape at an opening of a bore.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth C. Rodriguez whose telephone number is (571) 272-7070. The examiner can normally be reached on M-F 07:15 - 15:45. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075.

Submissions of your responses by facsimile transmission are encouraged. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-6640.

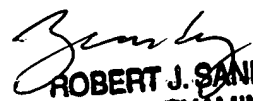
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ruth C. Rodriguez  
Patent Examiner  
Art Unit 3677

rcr  
May 29, 2006

  
**ROBERT J. SANDY**  
**PRIMARY EXAMINER**